

Serial No. 10/671,925

LISTING OF THE CLAIMS

1 1. (Original) A method for communicating TTY calls,
2 comprising the steps of:
3 detecting a TTY call;
4 determining that a digital display on a first
5 telecommunication terminal is to be used to display TTY
6 information of the call from a second telecommunication
7 terminal and that audio information will be transmitted to the
8 second telecommunication terminal;
9 converting the TTY information to digital display
10 information;
11 transmitting the digital display information to the first
12 telecommunication terminal; and
13 muting an incoming call audio path from the second
14 telecommunication terminal to the first telecommunication
15 terminal.

1 2. (Original) The method of claim 1 further comprises the
2 step of generating the audio information transmitted to the
3 second telecommunication terminal by a TTY device.

1 3. (Original) The method of claim 2 wherein the step of
2 generating the audio information comprises the step of
3 receiving the audio information from at least one of an acoustic
4 coupler of the TTY device via a handset of the first

Serial No. 10/671,925

5 telecommunication terminal or an interface of the TTY device
6 via an analog interface of the first telecommunication terminal.

1 4. (Original) The method of claim 3 further comprises the
2 step of operating the TTY device and the first
3 telecommunication terminal in a full duplex mode with respect
4 to the second telecommunication terminal.

1 5. (Original) The method of claim 2 further comprises the
2 steps of connecting the first telecommunication terminal to a
3 telecommunication switching system via a first
4 telecommunication link and the TTY device to the
5 telecommunication switching system via a second
6 telecommunication link; and
7 transmitting the audio information to the second
8 telecommunication terminal via the second telecommunication
9 link.

1 6. (Original) The method of claim 5 further comprises the
2 step of operating the TTY device and the first
3 telecommunication terminal in a full duplex mode with respect
4 to the second telecommunication terminal.

1 7. (Original) The method of claim 6 further comprises the
2 step of establishing a bridged line appearance between the first
3 and second telecommunication links.

Serial No. 10/671,925

1 8. (Original) The method of claim 5 further comprises the
2 step of operating the TTY device and the first
3 telecommunication terminal in a full duplex mode with respect
4 to the second telecommunication terminal.

1 9. (Original) The method of claim 1 further comprises the
2 step of generating the audio information transmitted from the
3 first telecommunication terminal to the second
4 telecommunication terminal by a handset connected to the first
5 telecommunication terminal.

1 10. (Original) The method of claim 9 further comprises
2 the step of operating the handset and the first
3 telecommunication terminal in a voice carry over mode.

1 11. (Original) The method of claim 1 wherein the step of
2 determining comprises the step of responding to an act of a
3 user on the first telecommunication terminal.

1 12. (Original) The method of claim 11 wherein the act
2 occurs during the TTY call.

1 13. (Original) The method of claim 11 wherein the act
2 occurs before the TTY call.

Serial No. 10/671,925

1 14. (Original) The method of claim 1 wherein the step of
2 detecting comprises the step of determining from stored
3 information that the second telecommunication terminal may be
4 transmitting TTY information.

1 15. (Original) The method of claim 1 wherein the step of
2 transmitting comprises the step of using a control path to the
3 first telecommunication terminal.

1 16. (Original) The method of claim 1 further comprises
2 the step of enabling an outgoing audio call path from the first
3 telecommunication terminal to the second telecommunication
4 terminal on which voice information is communicated from a
5 handset of the first telecommunication terminal.

1 17. (Original) The method of claim 1 wherein the second
2 telecommunication terminal is a voice messaging system.

1 18. (Original) The method of claim 17 wherein the step
2 of determining comprises the step of detecting from information
3 stored on the voice message system that the second
4 telecommunication terminal may be transmitting TTY
5 information.

1 19. (Original) The method of claim 17 wherein the step
2 of converting is performed by the voice message system.

Serial No. 10/671,925

1 20. (Original) An apparatus for communicating TTY
2 calls, comprising:
3 a computer;
4 a controller;
5 a switching network;
6 a memory;
7 the computer by execution of a control routine detecting a
8 TTY call;
9 the computer by execution of the control routine
10 determining that a first telecommunication terminal is to display
11 TTY information received from a second telecommunication
12 terminal on the digital display of the first telecommunication
13 terminal;
14 the controller converting the TTY information to digital
15 display information; and
16 the switching network communicating the digital display
17 information to the first telecommunication terminal, enabling a
18 first audio call path to the second telecommunication terminal,
19 and disabling a second audio call path from the second
20 telecommunication terminal to the first telecommunication
21 terminal.

1 21. (Original) The apparatus of claim 20 further
2 comprises a TTY device generating audio information for
3 communication on the first audio call path to the second
4 telecommunication terminal.

Serial No. 10/671,925

1 22. (Original) The apparatus of claim 21 wherein the
2 TTY device and the first telecommunication terminal operate in
3 a full duplex mode with respect to the second
4 telecommunication terminal.

1 23. (Original) The apparatus of claim 22 further
2 comprises at least one of an acoustic coupler of the TTY device
3 coupled to the first telecommunication terminal via a handset of
4 the first telecommunication terminal or an interface of the TTY
5 device coupled to the first telecommunication terminal via an
6 analog interface of the first telecommunication terminal to
7 generate the audio information.

1 24. (Original) The apparatus of claim 22 further
2 comprises a first telecommunication link connecting the first
3 telecommunication terminal to a telecommunication switching
4 system and a second telecommunication link connecting the
5 TTY device to the telecommunication switching whereby the
6 audio information is transmitted to the second
7 telecommunication terminal via the second telecommunication
8 link.

1 25. (Original) The apparatus of claim 24 further
2 comprises the telecommunication switching system establishing
3 a bridged line appearance between the first and second
4 telecommunication links.

Serial No. 10/671,925

1 26. (Original) The apparatus of claim 20 further
2 comprises a handset connected to the first telecommunication
3 terminal for generating voice information for communication on
4 the first audio call path from the first telecommunication
5 terminal to the second telecommunication terminal.

1 27. (Original) The apparatus of claim 26 wherein the
2 handset and the first telecommunication terminal operate in a
3 voice carry over mode.

1 28. (Original) The apparatus of claim 20 wherein the
2 switching network communicating the digital display information
3 to the first telecommunication terminal via a control path.

1 29. (Original) The apparatus of claim 20 wherein the
2 computer during execution of the control routine to determine
3 that a first telecommunication terminal is to display the TTY
4 information accesses data in the memory.

1 30. (Original) The apparatus of claim 29 wherein the
2 data stored in the memory was stored in response to an act of a
3 user on the first telecommunication terminal.

1 31. (Original) The apparatus of claim 30 wherein the act
2 occurs during the TTY call.

Serial No. 10/671,925

1 32. (Original) The apparatus of claim 30 wherein the act
2 occurs before the TTY call.

1 33. (Original) The apparatus of claim 20 further
2 comprises a voice message system and the voice message
3 system is the second telecommunication terminal.

1 34. (Canceled).

1 35. (Original) A processor-readable medium for
2 communicating TTY calls, comprising processor-executable
3 instructions configured for:
4 detecting a TTY call;
5 determining that a digital display on a first
6 telecommunication terminal is to be used to display TTY
7 information of the call from a second telecommunication
8 terminal and that audio information will be transmitted to the
9 second telecommunication terminal;
10 converting the TTY information to digital display
11 information;
12 transmitting the digital display information to the first
13 telecommunication terminal; and
14 muting an incoming call audio path from the second
15 telecommunication terminal to the first telecommunication
16 terminal.

Serial No. 10/671,925

1 36. (Original) The processor-readable medium of claim
2 35 further comprises generating the audio information
3 transmitted to the second telecommunication terminal by a TTY
4 device.

1 37. (Original) The processor-readable medium of claim
2 36 wherein generating the audio information comprises the step
3 of receiving the audio information from at least one of an
4 acoustic coupler of the TTY device via a handset of the first
5 telecommunication terminal or an interface of the TTY device
6 via an analog interface of the first telecommunication terminal.

1 38. (Original) The processor-readable medium of claim
2 37 further comprises operating the TTY device and the first
3 telecommunication terminal in a full duplex mode with respect
4 to the second telecommunication terminal.

1 39. (Original) The processor-readable medium of claim
2 36 further comprises connecting the first telecommunication
3 terminal to a telecommunication switching system via a first
4 telecommunication link and the TTY device to the
5 telecommunication switching system via a second
6 telecommunication link; and
7 transmitting the audio information to the second
8 telecommunication terminal via the second telecommunication
9 link.

Serial No. 10/671,925

1 40. (Original) The processor-readable medium of claim
2 39 further comprises operating the TTY device and the first
3 telecommunication terminal in a full duplex mode with respect
4 to the second telecommunication terminal.

1 41. (Original) The processor-readable medium of claim
2 40 further comprises establishing a bridged line appearance
3 between the first and second telecommunication links.

1 42. (Original) The processor-readable medium of claim
2 35 further comprises generating the audio information
3 transmitted from the first telecommunication terminal to the
4 second telecommunication terminal by a handset connected to
5 the first telecommunication terminal.

1 43. (Original) The processor-readable medium of claim
2 42 further comprises operating the handset and the first
3 telecommunication terminal in a voice carry over mode.

1 44. (Original) The processor-readable medium of claim
2 35 wherein the determining comprises responding to an act of a
3 user on the first telecommunication terminal.

1 45. (Original) The processor-readable medium of claim
2 44 wherein the act occurs during the TTY call.

Serial No. 10/671,925

1 46. (Original) The processor-readable medium of claim
2 44 wherein the act occurs before the TTY call.

1 47. (Original) The processor-readable medium of claim
2 35 wherein the detecting comprises determining from stored
3 information that the second telecommunication terminal may be
4 transmitting TTY information.

1 48. (Original) The processor-readable medium of claim
2 35 wherein the transmitting comprises using a control path to
3 the first telecommunication terminal.

1 49. (Original) The processor-readable medium of claim
2 35 further comprises the enabling an outgoing audio call path
3 from the first telecommunication terminal to the second
4 telecommunication terminal on which voice information is
5 communicated from a handset of the first telecommunication
6 terminal.

1 50. (Original) The processor-readable medium of claim
2 35 wherein the second telecommunication terminal is a voice
3 messaging system.

1 51. (Original) The processor-readable medium of claim
2 50 wherein the determining comprises detecting from
3 information stored on the voice message system that the

Serial No. 10/671,925

4 second telecommunication terminal may be transmitting TTY
5 information.

1 52. (Original) The processor-readable medium of claim
2 50 wherein the converting is performed by the voice message
3 system.